

IN THE CLAIMS:

Please add new claims 23-50 as follows:

CLAIMS LISTING

1 – 21 (Cancelled)

22. (Previously Submitted) A method for transferring data from a server to at least one client, said method comprising the steps of:

transforming said source data into a hierarchical representation comprising a plurality of coefficients, said hierarchical representation comprising a plurality of levels of essentially non-redundant data, wherein a level of said hierarchical representation comprises transform data sufficient to reconstruct said source data at a resolution corresponding to said level;

requesting, from a client to a server, coordinates of coefficients of said transform data from a level of said hierarchical representation necessary to reconstruct at least a portion of said source data;

transferring, from said server to said client, $O(N)$ coefficients to represent “N” pixels from said hierarchical representation requested by said client; and

transforming, at said client, said coefficients to generate pixels of said portion of said source image for display at said client.

23. (New) A method for transferring data from a server to at least one client, said method comprising:

transforming source data into a hierarchical representation using a wavelet transform with fixed point kernels, said hierarchical representation comprising a plurality of levels of essentially non-redundant data, wherein a level of said hierarchical representation comprises transform data sufficient to reconstruct said source data at a resolution corresponding to said level;

requesting, from a client to a server, transform data from said hierarchical representation necessary to reconstruct at least a portion of said source data;

transferring, from said server to said client, said transform data from said hierarchical representation requested by said client; and

re-constructing, at said client, said portion of said source image for display at said client with said transform data.

24. (New) The method as set forth in claim 23, further comprising:

requesting, from said client to said server, transform data from said hierarchical representation necessary to reconstruct a new portion of said source data;

transferring, from said server to said client, additional transform data from said hierarchical representation corresponding to said new portion of said source data; and

reconstructing said new portion of said source data with said additional transform data and said transform data originally transferred, whereby only incremental transform data necessary to construct said new portion of said source data at said client is transferred from said server to said client.

25. (New) The method as set forth in claim 23, wherein:

transforming said source data into a hierarchical representation comprises utilizing said wavelet transform to generate a plurality of low pass coefficients and a plurality of high pass coefficients;

requesting data from said hierarchical representation comprises transferring coefficient coordinates to identify coefficients sufficient to re-construct said portion of said source image; and

re-constructing said portion of said source image comprises transforming said coefficients to generate said portion of said source image.

26. (New) The method as set forth in claim 23, wherein transferring, from said server to said client, said transform data comprises transferring $O(N)$ coefficients to represent “N” pixels for display at said client, wherein “N” comprises an integer value.

27. (New) The method as set forth in claim 23, wherein transforming said source data into a hierarchical representation comprises executing a finite impulse response function to generate said transform data.

28. (New) The method as set forth in claim 23, wherein transforming said source data into a hierarchical representation comprises preserving geometry between said source data and said transform data, so that any portion of said source data is identifiable from a portion of said transform data.

29. (New) A system comprising:

server for storing source data in a hierarchical representation, said transform data generated from source data using a wavelet transform with fixed point kernels, said hierarchical representation comprising a plurality of levels of essentially non-redundant data, wherein a level of said hierarchical representation comprises transform data sufficient to reconstruct said source data at a resolution corresponding to said level;

at least one client, coupled to communicate with said server, for requesting transform data from said hierarchical representation necessary to reconstruct at least a portion of said source data;

said server for transferring said transform data requested by said client; and

said client for re-constructing, said portion of said source image for display at said client with said transform data.

30. (New) The system as set forth in claim 29, wherein:

said client further comprising software for requesting, to said server, transform data from said hierarchical representation necessary to reconstruct a new portion of said source data;

said server further comprising software for transferring, to said client, additional transform data from said hierarchical representation corresponding to said new portion of said source data; and

said client further comprising software for reconstructing said new portion of said source data with said additional transform data and said transform data originally transferred, whereby only incremental transform data necessary to construct said new portion of said source data at said client is transferred from said server to said client.

31. (New) A server comprising:

server for storing source data in a hierarchical representation, said transform data generated from source data using a wavelet transform with fixed point kernels, said hierarchical representation comprising a plurality of levels of essentially non-redundant data, wherein a level of said hierarchical representation comprises transform data sufficient to reconstruct said source data at a resolution corresponding to said level;

said server for receiving a request, from at least one client, for transform data from said hierarchical representation necessary to reconstruct at least a portion of said source data; and

said server for transferring said transform data requested by said client; and

32. (New) The server as set forth in claim 31, wherein:

said server further comprising software for receiving a request, from a client, for transform data from said hierarchical representation necessary to reconstruct a new portion of said source data; and

said server further comprising software for transferring, to said client, additional transform data from said hierarchical representation corresponding to said new portion of said source data, whereby said server only transfers incremental transform data necessary to construct said new portion of said source data at said client.

33. (New) A computer comprising:

software for requesting transform data necessary to reconstruct at least a portion of source data, said transform data generated from said source data using a wavelet transform with fixed point kernels, said hierarchical representation comprising a plurality of levels of essentially non-redundant data, wherein a level of said hierarchical representation comprises transform data sufficient to reconstruct said source data at a resolution corresponding to said level;

software for receiving, in response to said request, said transform data requested by said client; and

software for re-constructing, said portion of said source image for display on said computer with said transform data.

34. (New) The computer as set forth in claim 33, further comprising:

software for requesting, from another computer, transform data from said hierarchical representation necessary to reconstruct a new portion of said source data;

software for receiving, from another computer, additional transform data from said hierarchical representation corresponding to said new portion of said source data; and

software for reconstructing said new portion of said source data with said additional transform data and said transform data originally transferred, whereby only incremental transform data necessary to construct said new portion of said source data at said client is received.

35. (New) A computer readable media embodying a method for transferring data from a server to at least one client, said method comprising:

transforming source data into a hierarchical representation using a wavelet transform with fixed point kernels, said hierarchical representation comprising a plurality of levels of essentially non-redundant data, wherein a level of said hierarchical representation comprises transform data sufficient to reconstruct said source data at a resolution corresponding to said level;

requesting, from a client to a server, transform data from said hierarchical representation necessary to reconstruct at least a portion of said source data;

transferring, from said server to said client, said transform data from said hierarchical representation requested by said client; and

re-constructing, at said client, said portion of said source image for display at said client with said transform data.

36. (New) The computer readable media as set forth in claim 35, further comprising:

requesting, from said client to said server, transform data from said hierarchical representation necessary to reconstruct a new portion of said source data;

transferring, from said server to said client, additional transform data from said hierarchical representation corresponding to said new portion of said source data; and

reconstructing said new portion of said source data with said additional transform data and said transform data originally transferred, whereby only incremental transform data necessary to construct said new portion of said source data at said client is transferred from said server to said client.

37. (New) The computer readable media as set forth in claim 35, wherein:

transforming said source data into a hierarchical representation comprises utilizing said wavelet transform to generate a plurality of low pass coefficients and a plurality of high pass coefficients;

requesting data from said hierarchical representation comprises transferring coefficient coordinates to identify coefficients sufficient to re-construct said portion of said source image; and

re-constructing said portion of said source image comprises transforming said coefficients to generate said portion of said source image.

38. (New) The computer readable media as set forth in claim 35, wherein transferring, from said server to said client, said transform data comprises transferring $O(N)$ coefficients to represent "N" pixels for display at said client, wherein "N" comprises an integer value.

39. (New) The computer readable media as set forth in claim 35, wherein transforming said source data into a hierarchical representation comprises executing a finite impulse response function to generate said transform data.

40. (New) The computer readable media as set forth in claim 35, wherein transforming said source data into a hierarchical representation comprises preserving geometry between said source data and said transform data, so that any portion of said source data is identifiable from a portion of said transform data.

41. (New) A method for transferring data from a server to at least one client, said method comprising the steps of:

transforming source data into a hierarchical representation using a wavelet transform, said hierarchical representation comprising a plurality of levels of essentially non-redundant data, wherein a level of said hierarchical representation comprises transform data sufficient to reconstruct said source data at a resolution corresponding to said level;

determining, at a client, at least a portion of said transform data necessary to reconstruct desired portions of said source data;

determining, at said client, a number of blocks necessary for partitioning of said portion of said transform data into at least one block;

transferring, from said client to a server, a request for said block of transform data;

transferring, from said server to said client, said block of transform data requested by said client; and

re-constructing, at said client, said portion of said source image for display at said client with said transform data.

42. (New) A computer readable media embodying a method for transferring data from a server to at least one client, said method comprising:

transforming source data into a hierarchical representation using a wavelet transform, said hierarchical representation comprising a plurality of levels of essentially non-redundant data, wherein a level of said hierarchical representation comprises transform data sufficient to reconstruct said source data at a resolution corresponding to said level;

determining, at a client, at least a portion of said transform data necessary to reconstruct desired portions of said source data;

determining, at said client, a number of blocks necessary for partitioning of said portion of said transform data into at least one block;

transferring, from said client to a server, a request for said block of transform data;

transferring, from said server to said client, said block of transform data requested by said client; and

re-constructing, at said client, said portion of said source image for display at said client with said transform data.

43. (New) A method for transferring data from a server to at least one client, said method comprising:

transforming multi-component source data into a vector of multi-spectral transform data comprising a hierarchical representation with a plurality of levels of essentially non-redundant data, wherein a level of said hierarchical representation comprises multi-spectral transform data sufficient to reconstruct said multi-component source data at a resolution corresponding to said level;

requesting, from a client to a server, multi-spectral transform data from said hierarchical representation necessary to reconstruct at least a portion of said multi-component source data;

transferring, from said server to said client, said multi-spectral transform data from said hierarchical representation requested by said client; and

re-constructing, at said client, said portion of said multi-component source image for display at said client with said multi-spectral transform data.

44. (New) The method as set forth in claim 43, wherein said multi-component source data comprises multi-dimensional source data.

45. (New) The method as set forth in claim 44 wherein said multi-dimensional source data comprises three dimensional source data.

46. (New) The method as set forth in claim 44, wherein said multi-component source data comprises multi-colored source data.

47. (New) A computer readable media embodying a method for transferring data from a server to at least one client, said method comprising:

transforming multi-component source data into a vector of multi-spectral transform data comprising a hierarchical representation with a plurality of levels of essentially non-redundant data, wherein a level of said hierarchical representation

comprises multi-spectral transform data sufficient to reconstruct said multi-component source data at a resolution corresponding to said level;

requesting, from a client to a server, multi-spectral transform data from said hierarchical representation necessary to reconstruct at least a portion of said multi-component source data;

transferring, from said server to said client, said multi-spectral transform data from said hierarchical representation requested by said client; and

re-constructing, at said client, said portion of said multi-component source image for display at said client with said multi-spectral transform data.

48. (New) The computer readable media as set forth in claim 47, wherein said multi-component source data comprises multi-dimensional source data.

49. (New) The computer readable media as set forth in claim 48, wherein said multi-dimensional source data comprises three dimensional source data.

50. (New) The computer readable media as set forth in claim 47, wherein said multi-component source data comprises multi-colored source data.